

The opinion in support of the decision being entered today was not written
for publication and is not binding precedent of the Board.

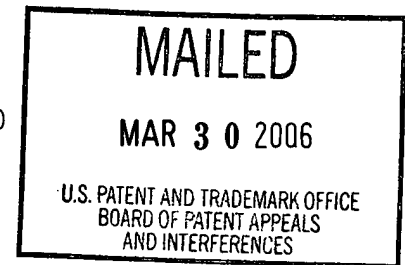
UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte ALFONSO B. PICCIRILLI, and HERMAN M. PRESBY

Appeal No. 2006-0834
Application No. 09/262,530

ON BRIEF



Before THOMAS, JERRY SMITH, and BARRETT, Administrative Patent
Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from
the examiner's rejection of claims 1-32, which constitute all
the claims pending in this application.

The disclosed invention pertains to a method and apparatus for optically transmitting data signals.

Representative claim 1 is reproduced as follows:

1. A method for transmitting data content provided in a data signal, comprising:

a) assigning distinct portions of the data signal to two or more respective channels;

b) for each channel, using corresponding assigned portions of the data signal to modulate an optical carrier signal at a respective wavelength associated with that channel; and

c) transmitting an optical output signal that comprises modulated carrier energy at each of the respective wavelengths, such that data content is carried, in the transmitted output optical signal, by energy at two or more of the respective wavelengths.

The examiner relies on the following references:

Dugan	5,710,650	Jan. 20, 1998
Chang et al. (Chang)	6,160,651	Dec. 12, 2000
		(filed Jan. 25, 1999)
Hait	6,256,124	July 03, 2001
		(filed May 08, 1998)

D. Norte et al. (Norte I), "All-Optical TDM-to-WDM Data Format Conversion in a Dynamically Reconfigurable WDM Network," IEEE Photonics Technology Letters, Vol. 7, No. 8, August 1995, pages 920-922.

D. Norte et al. (Norte II), "Demonstration of an All-Optical Data Format Transparent WDM-to-TDM Network Node with Extinction Ratio Enhancement for Reconfigurable WDM Networks," IEEE Photonics Technology Letters, Vol. 8, No. 5, May 1996, pages 715-717.

Appeal No. 2006-0834
Application No. 09/262,530

The following rejections are on appeal before us:

1. Claims 1, 2, 7, 9, 15, 20, 28 and 31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Dugan.

2. Claims 3, 8, 12-14, 16, 22, 25 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Dugan in view of Hait.

3. Claims 4-6, 17-19, 23, 24, 29 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Dugan in view of Hait and Chang.

4. Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Dugan in view of Norte I.

5. Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Dugan in view of Hait and Chang and further in view of Norte I.

6. Claims 21 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Dugan in view of Norte II.

Appeal No. 2006-0834
Application No. 09/262,530

7. Claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Dugan in view of Hait and Norte I.

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the evidence relied upon supports each of the examiner's rejections. Accordingly, we affirm.

Appeal No. 2006-0834
Application No. 09/262,530

We consider first the rejection of claims 1, 2, 7, 9, 15, 20, 28 and 31 under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Dugan. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

The examiner has indicated how the invention of these claims is deemed to be fully met by the disclosure of Dugan [final rejection, pages 3-4, incorporated into answer at page 4]. With respect to claims 1, 2, 7 and 9, which stand or fall together as a single group [brief, page 4], appellants argue that Dugan fails to meet the claimed invention because Dugan

uses lower rate streams to modulate an optical carrier signal rather than distinct portions of the data signal itself as claimed. Appellants argue that since the lower rate signals operate at a different bit rate than the higher rate signals, the lower rate signals are not portions of the higher rate signals [brief, pages 4-6]. The examiner responds that the partitioning of the data signal as disclosed by Dugan meets the claimed assignment of distinct portions of the data signal as claimed. Thus, the examiner finds that the lower rate signals of Dugan are portions of the higher rate signal within the meaning of the claimed invention [answer, pages 5-7].

Appellants respond that Dugan's system fails to provide the enhanced security offered by appellants' invention. They also argue that the signal portions of the claimed data signal must correspond exactly in signal characteristics to the data content and bit rate of the original signal [reply brief, pages 1-3].

Appeal No. 2006-0834
Application No. 09/262,530

We will sustain the examiner's rejection of claims 1, 2, 7 and 9 because we essentially agree with the examiner's findings as set forth in the answer. Most importantly, we agree with the examiner that the partitioning disclosed by Dugan meets the broad recitation of assigning distinct portions of the data signal to two or more respective channels as claimed. We do not agree with appellants' contention that the claimed assignment of distinct portions of the data signal requires that the portions have not only the same content but also the same bit rate. The partitioning of Dugan is an assignment of portions when the claimed phrase is given its broadest reasonable interpretation. Appellants could easily amend the claims to have the scope they now argue. We also note that appellants' argument regarding the enhanced security of the disclosed invention is not commensurate in scope with the invention of claim 1.

Appeal No. 2006-0834
Application No. 09/262,530

With respect to claims 15 and 20, which stand or fall together [brief, page 4], appellants argue that Dugan fails to assemble different portions of any particular received optical signal, taken from different wavelength channels, into a single, sequential data stream as claimed. They assert that the examiner has failed to give appropriate weight to the claim limitations [brief, page 6]. The examiner responds that Dugan teaches assembly of the signal portions into a single sequential signal as described at column 3, lines 9-16 [answer, page 7].

We will sustain the examiner's rejection of claims 15 and 20. We agree with the examiner that Dugan discloses that the original data signal is reassembled from the portions transmitted over different wavelength channels. Since claims 28 and 31 have recitations similar to claims 15 and 20, we also sustain the examiner's rejection of these claims.

We now consider the examiner's rejections of the claims under 35 U.S.C. § 103(a). In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual

Appeal No. 2006-0834
Application No. 09/262,530

basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984).

These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered and are deemed to be waived [see 37 CFR § 41.37(c)(1)(vii)(2004)].

The examiner has indicated how the claimed invention is deemed to be rendered obvious by the applied prior art [final rejection, pages 4-11]. Each of these rejections is sufficiently clear and complete to establish at least a prima facie case of obviousness.

Appeal No. 2006-0834
Application No. 09/262,530

We consider first the rejection of claims 3, 8, 12-14, 16, 22, 25 and 27 based on Dugan and Hait. With respect to independent claim 22, appellants argue that Hait fails to remedy the deficiencies of the Dugan reference [brief, page 7]. With respect to dependent claim 3, appellants assert that the portion of Hait relied on by the examiner fails to meet the particular limitation in question without any discussion or analysis [brief, page 8]. The examiner responds by explaining how the teachings of Dugan and Hait render the claimed invention obvious [answer, pages 7-8].

We will sustain the examiner's rejection of claim 22 because there are no deficiencies in the Dugan reference. We will sustain the examiner's rejection of claim 3 because appellants have failed to offer a persuasive argument in rebuttal to the examiner's prima facie case of obviousness. We will sustain the examiner's rejection of claims 8, 12-14, 16, 25 and 27 because appellants have not separately argued these claims.

Appeal No. 2006-0834
Application No. 09/262,530

We now consider the rejection of claims 4-6, 17-19, 23, 24, 29 and 30 based on Dugan, Hait and Chang. Appellants have indicated that these claims stand or fall together [brief, page 4]. With respect to claim 4, appellants assert that the portions of Chang relied on by the examiner fail to meet the claimed permutation of recurring time windows [brief, page 8]. The examiner responds by explaining how the collective teachings of Dugan, Hait and Chang render the claimed invention obvious [answer, pages 8-9].

We will sustain the examiner's rejection of claims 4-6, 17-19, 23, 24, 29 and 30 because the examiner has established a prima facie case of obviousness and because appellants have failed to offer a persuasive argument in rebuttal to the examiner's prima facie case of obviousness.

We now consider the rejection of claim 10 based on Dugan and Norte I. Appellants simply assert that Norte I does not teach or suggest the limitations of claim 10 [brief, page 9]. The examiner responds by explaining how the teachings of Dugan and Norte I meet the claimed invention [answer, pages 9-10].

We will sustain the examiner's rejection of claim 10 because the examiner has established a prima facie case of obviousness and because appellants have failed to offer a persuasive argument in rebuttal to the examiner's prima facie case of obviousness.

We now consider the rejection of claim 11 based on Dugan, Hait, Chang and Norte I. Appellants simply assert that the combination of references does not teach or suggest the limitations of claim 11 [brief, page 9]. The examiner responds by explaining how the teachings of the applied prior art meet the claimed invention [answer, page 10].

We will sustain the examiner's rejection of claim 11 because the examiner has established a prima facie case of obviousness and because appellants have failed to offer a persuasive argument in rebuttal to the examiner's prima facie case of obviousness.

We now consider the rejection of claims 21 and 32 based on Dugan and Norte II. Appellants simply assert that Norte II fails to supplement the fundamental deficiencies of Dugan [brief, pages 9-10]. The examiner responds by noting that

Appeal No. 2006-0834
Application No. 09/262,530

Dugan is not deficient and by explaining how the teachings of Dugan and Norte II meet the claimed invention [answer, pages 10-11].

We will sustain the examiner's rejection of claims 21 and 32 because appellants have failed to offer a persuasive argument in rebuttal to the examiner's prima facie case of obviousness.


Finally, we consider the rejection of claim 26 based on Dugan, Hait and Norte I. Appellants simply assert that Norte I does not remedy the deficiencies of Dugan [brief, page 10]. Since we have determined that there are no deficiencies in Dugan, we sustain the examiner's rejection of claim 26 for reasons discussed above.

In summary, we have sustained each of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 1-32 is affirmed.

Appeal No. 2006-0834
Application No. 09/262,530

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED


JAMES D. THOMAS
Administrative Patent Judge

Jerry Smith
JERRY SMITH
Administrative Patent Judge

BOARD OF PATENT
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LEE E. BARRETT
Administrative Patent Judge

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Appeal No. 2006-0834
Application No. 09/262,530

JOSEPH B. RYAN
RYAN, MASON & LEWIS, LLP
90 FOREST AVE.
LOCUST VALLEY, NY 11560